



This map was made possible through the cooperation of the following organizations. Please contact these organizations for more information on how you can become a steward of the Vermillion River:

Dakota County Soil and Water Conservation District  
4100 220<sup>th</sup> St. West, Suite 102  
Farmington, MN 55024  
(651) 480-7777 www.dakotascwd.org

Friends of the Mississippi River  
46 East 4th St., Suite 606  
St. Paul, MN 55101  
(651) 222-2193 www.fmr.org

Dakota County Office of Planning  
14955 Galaxie Ave.  
Apple Valley, MN 55124  
(952) 891-7030 www.co.dakota.mn.us

Minnesota Department of Natural Resources  
1200 Warner Rd.  
St. Paul, MN 55106  
(651) 772-7900 www.dnr.state.mn.us

Dakota County Environmental Education Program  
4100 220<sup>th</sup> St. West Suite 101  
Farmington, MN 55024  
(651) 480-7734 www.extension.umn.edu/county/dakota/  
environment/eeprog.html

Watershed Facts:

- The Vermillion River Watershed is 372 square miles, with portions in Scott, Dakota, and Goodhue Counties, making it the largest watershed in the seven-county metro area.
- The Vermillion River originates in New Market Township in Scott County and travels 38 miles across Dakota County before dropping 90 feet at the falls in Hastings. Below the falls, the river winds its way through the Vermillion River bottoms traveling 20 miles parallel to the Mississippi River. It joins the Mississippi River just north of Red Wing.
- The population of the watershed has grown 47% in the past decade from an estimated 100,700 people in 1990 to over 148,000 in 2000 in Dakota County alone.
- There are 23 local units of government and one sovereign nation within the watershed.
- Four wastewater treatment plants located in the watershed discharge to the Vermillion River. The largest of these is the Metropolitan Council wastewater treatment plant in Empire Township.
- The watershed contains over 50 stream miles that support naturally reproducing trout or have water temperatures that would sustain trout populations.
- The Vermillion River has a base flow of approximately 200 cubic feet per second (cfs) at the U.S. Geologic Survey monitoring site in Empire Township. The highest flow in the river at this site was recorded on September 16, 1992, at 6,570 cfs. (Period of record includes 1942-1945; 1974-1999.)
- Urban and rural non-point source pollution are the most significant threats to the river's water quality. Nutrients, sediment, and bacteria flowing off of lawns, fields, construction sites, feedlots, and from failing septic systems contribute to the degradation of the river and the loss of fish and wildlife habitat.
- The Vermillion River from its headwaters to the falls in Hastings is listed as impaired by the U.S. Environmental Protection Agency due to high levels of fecal coliform bacteria. Below Hastings, the river is listed as impaired due to high turbidity (cloudiness of water).
- Watershed citizens and high school students volunteer by collecting biological and chemical data and participating in restoration projects along the river and its tributaries.
- Water quality and quantity in the watershed is cooperatively monitored by the U.S. Geological Survey, the Minnesota Pollution Control Agency, the Metropolitan Council, the Minnesota Department of Natural Resources, the Dakota County Soil and Water Conservation District, Dakota County, the Dakota County Environmental Education Program, the Prairie Island Indian Community, and the City of Lakeville.

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SUBURBAN & INDUSTRIAL/RETAIL  
RIVER FRIENDLY PRACTICES

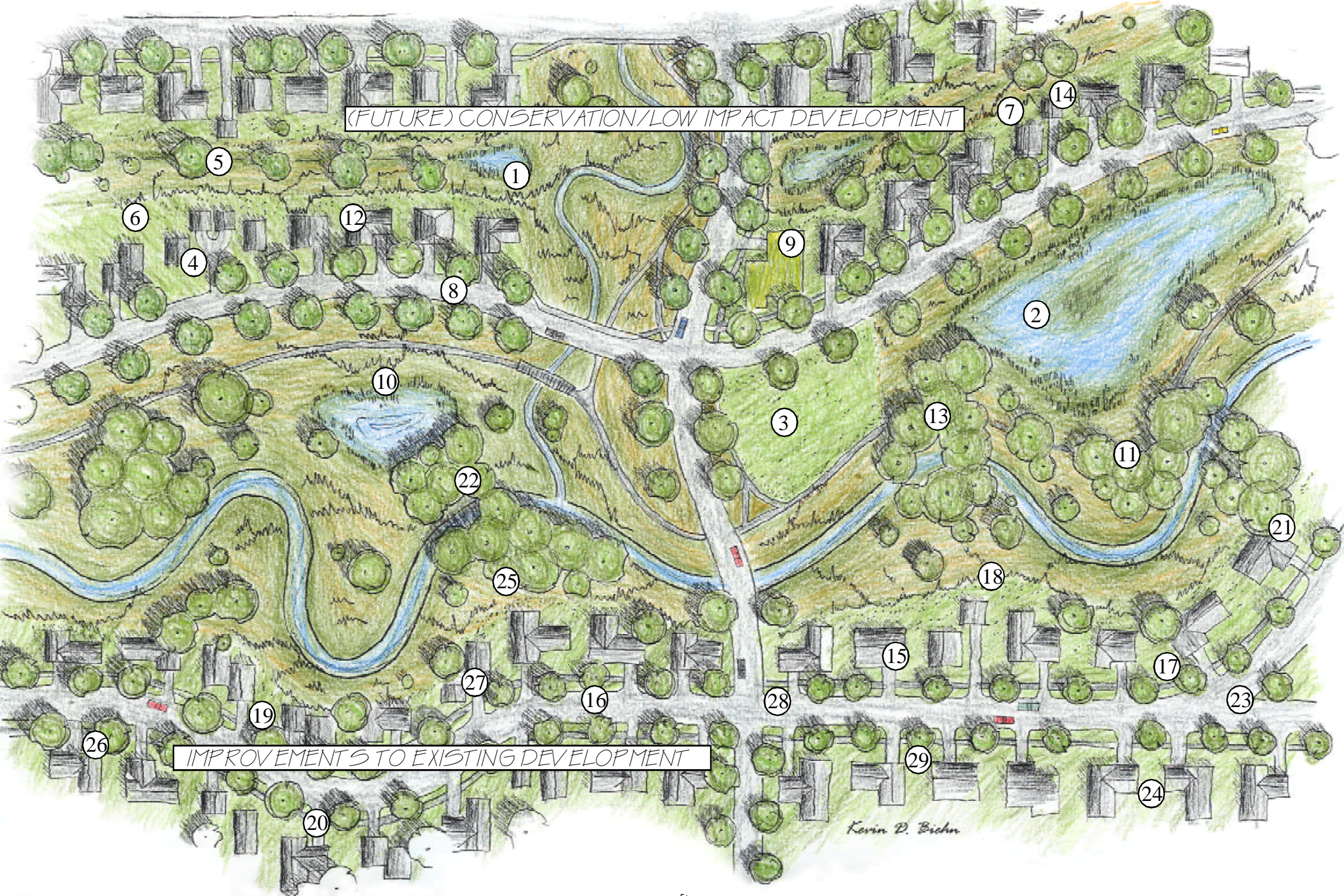
COMMUNITY PLANNING

- 1) Manage stormwater
- 2) Utilize stormwater/snowmelt ponds
- 3) Incorporate recreation/educational components
- 4) Reduce impervious surfaces (narrower roads, shared driveways)
- 5) Utilize bioretention practices
- 6) Maximize the infiltration of precipitation
- 7) Plant native vegetation in swales
- 8) Incorporate grit/oil separators
- 9) Promote Green Roof initiatives
- 10) Enhance & protect wetlands
- 11) Protect, establish & enhance habitat
- 12) Promote smaller lot sizes
- 13) Preserve & protect natural resources
- 14) Promote overland infiltration/drainage vs. traditional storm sewer drainage

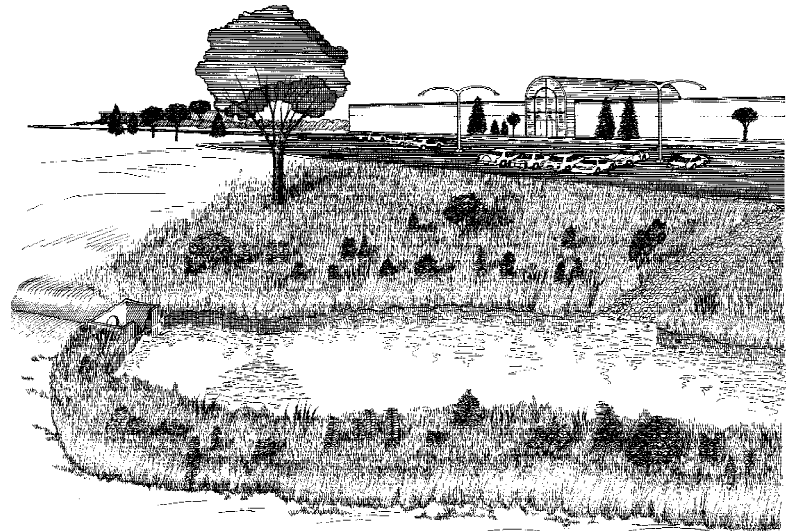
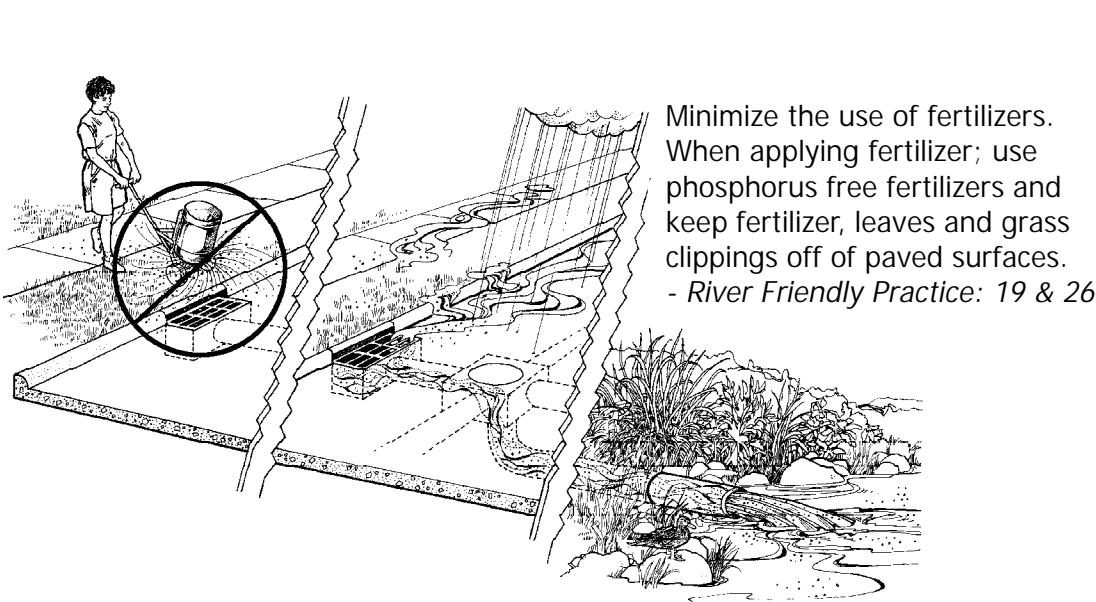
CITIZEN INVOLVEMENT

- 15) Direct gutter downspouts onto lawns & away from impervious surfaces and storm sewer inlets
- 16) Label & inspect storm drain inlets
- 17) Practice Integrated Pest Management
- 18) Incorporate filter strips
- 19) Keep trash, toxics, waste oil, pet waste, leaves grass clippings & fertilizer off streets & driveways
- 20) Conserve water
- 21) Limit size of turf lawns
- 22) Buffer water & wetlands with native vegetation
- 23) Maintain streets (salt, sand, leaf removal)
- 24) Compost organic garbage
- 25) Landscape for wildlife
- 26) When you fertilize, have your soil tested, use sparingly and follow directions. Always use a no phosphorus fertilizer unless a soil test indicates phosphorus is needed
- 27) Wash vehicles & equipment in designated areas
- 28) Minimize & find alternatives to salting & sanding street/walks
- 29) Incorporate rain gardens & rain barrels

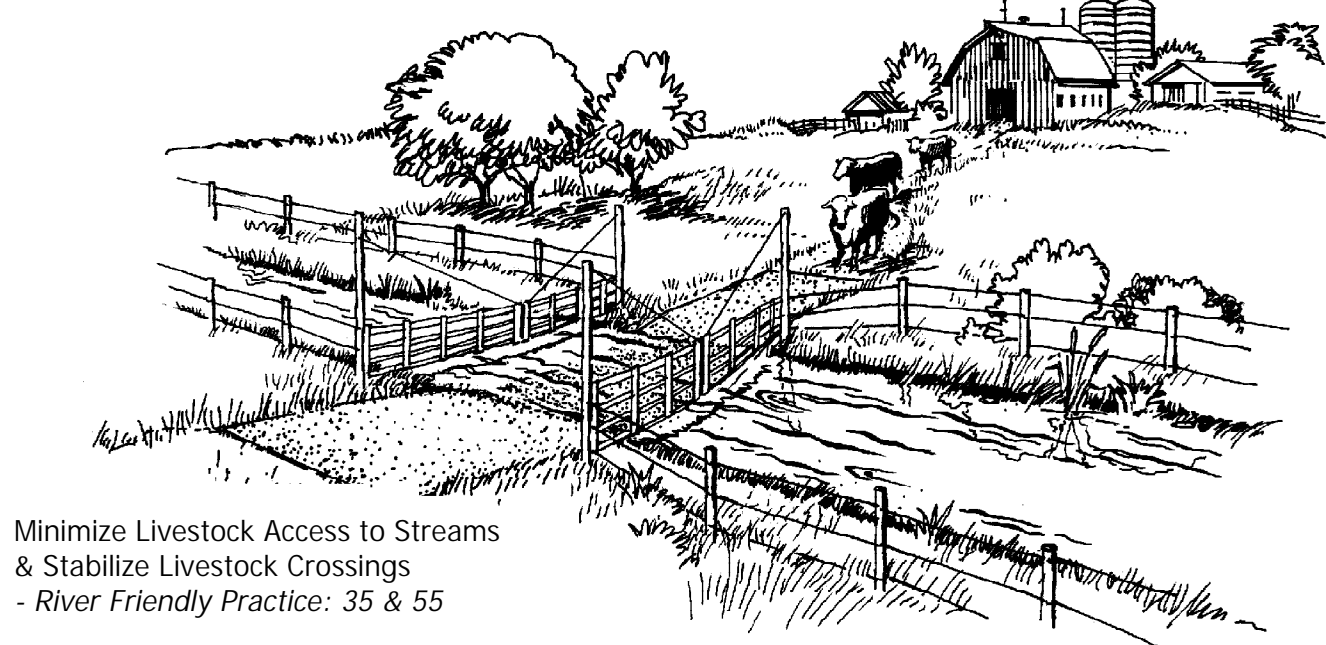
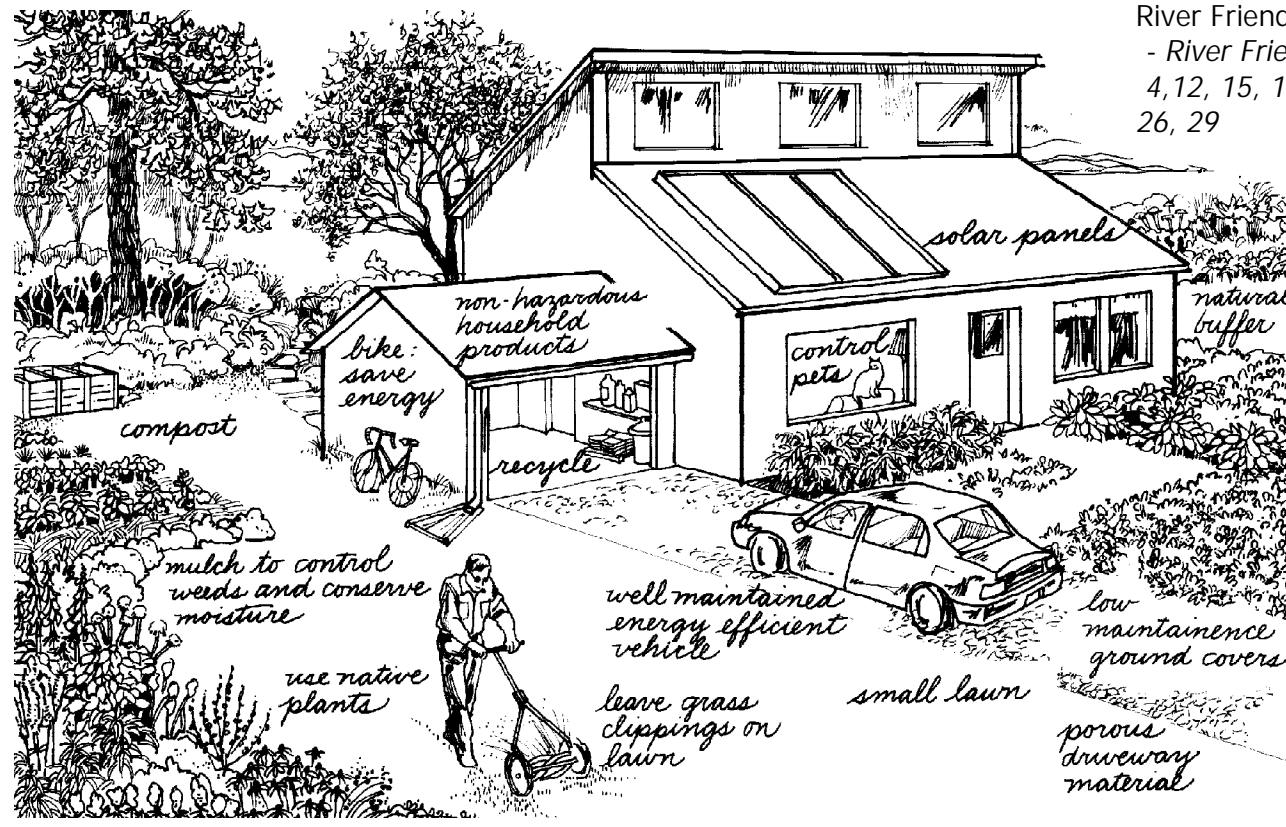
SUBURBAN LANDSCAPE



INDUSTRIAL/RETAIL LANDSCAPE



RIVER FRIENDLY PRACTICES



RURAL/AGRICULTURAL  
RIVER FRIENDLY PRACTICES

- 30) Buffer water & wetlands w/
- 31) Restore & enhance wetland
- 32) Protect/preserve the floodp
- 33) Protect, establish & enhance habitat
- 34) Incorporate contour buffer
- 35) Stabilize livestock stream crossings
- 36) Manage drainage
- 37) Plant/maintain waterways & critical areas
- 38) Incorporate terraces
- 39) Use diversions
- 40) Use a cover crop
- 41) Practice conservation tillage
- 42) Practice crop rotation
- 43) Practice contour farming
- 44) Incorporate filter strips
- 45) Practice strip cropping
- 46) Practice rotational grazing
- 47) Control invasive species
- 48) Manage feedlots
- 49) Practice woodland steward
- 50) Incorporate shelter belts
- 51) Practice irrigation conserva
- 52) Store & test manure
- 53) Practice Integrated Pest Management
- 54) Reduce soil compaction
- 55) Fence livestock off streams wetlands & lakes
- 56) Maintain septic systems
- 57) Manage nutrient application
- 58) Use alternative livestock watering facilities

